



In the Claims

Please amend the claims as follows:

Complete listing of claims 1-28

Claims 1-17 (Cancelled)

18. (New) A semiconductor single crystal manufacturing apparatus using the Czochralski method comprising a crucible for pooling melt of a raw material of a semiconductor single crystal, and a plurality of heaters vertically disposed outside the crucible for heating and melting the raw material, wherein the electric power of each of the heaters is independently controlled., and a heat shield is means for defining the temperature distribution by the plurality of heaters.

19. (New) The semiconductor single crystal manufacturing apparatus of claim 18, wherein the heat shield means is provided between the plurality of heaters.

20. (New) The semiconductor single crystal manufacturing apparatus of claim 18, wherein the heat shield means is disposed outside the plurality of heaters.

21. (New) The semiconductor single crystal manufacturing apparatus of claim 19, wherein the heat shield means is provided in a location in an area or in the vicinity of the area where an amount of generated heat is relatively low among heat distributions generated by all of the heaters.

22. (New) The semiconductor single crystal manufacturing apparatus of claim 20, wherein the heat shield means is provided in a location in an area or in the vicinity of the area where an amount of generated heat is relatively low among heat distributions generated by all of the heaters.

23. (New) The semiconductor single crystal manufacturing apparatus of claim 19, wherein for a heater located on an upper side, a resistance value for heater respective portions is adjusted such that the amount of generated heat in a heater lower portion is lower than that in a heater upper portion, and

for a heater located on a lower side, the resistance value for the heater respective portions is adjusted such that the amount of generated heat in a heater upper portion is lower than that in a heater lower portion.

24. (New) The semiconductor single crystal manufacturing apparatus of claim 20, wherein for a heater located on an upper side, a resistance value for heater respective portions is adjusted such that the amount of generated heat in a heater lower portion is lower than that in a heater upper portion, and

for a heater located on a lower side, the resistance value for the heater respective portions is adjusted such that the amount of generated heat in a heater upper portion is lower than that in a heater lower portion.

25. (New) The semiconductor single crystal manufacturing apparatus of claim 19, wherein the heat shield means is provided around the entire periphery of the crucible.

26. (New) The semiconductor single crystal manufacturing apparatus of claim 20, wherein the heat shield means is provided around the entire periphery of the crucible.

27. (New) The semiconductor single crystal manufacturing apparatus of claim 19, wherein the material constituting the heat shield means contains a graphite fiber material or graphite.

28. (New) The semiconductor single crystal manufacturing apparatus of claim 20, wherein the material constituting the heat shield means contains a graphite fiber material or graphite.